

RESIN CAR WORKS
RCW

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Freight Cars of Every Description

Kit No. 17.3

N. C. & St. L.

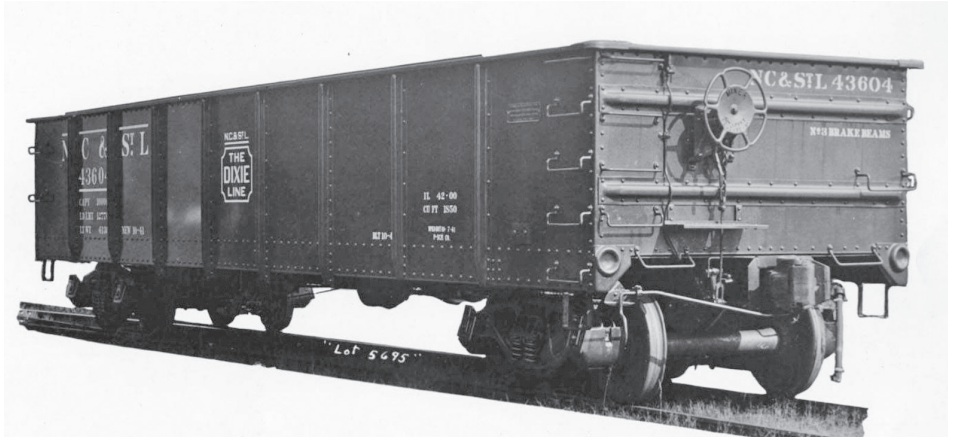
40' Steel Solid-Bottom Gondolas

Thank you for your interest in Resin Car Works and this kit. Resin Car Works is not a business in the traditional sense. Its purpose is to share in the fun of prototype railroad freight car modeling and their operations with others to provide unique and different equipment that isn't readily available. Several friends assist with various production phases so it's not quite a one-man operation. To list a few who helped with the production of this kit, I would like to thank: Tom Madden for the gorgeous castings; Ken Soroos for the decal artwork; Jerry Hamsmith for the instructions; and Eric Hansmann, the keeper of the website and blog.

This is a "CRAFTMAN" level resin mini-kit and its construction should not be attempted by anyone who has not built similar types of models. The kit consists of a one-piece resin body with floor and underframe; interior floor and detail parts; suitable Tahoe Model Works truck sideframes; various Tichy parts; various pieces of wire and stirrups; and decals. The modeler will have to supply all other parts to create a finished model, such as couplers and wheel sets. See the Resin Car Works website (www.resincarworks.com) for kit instructions, more prototype information and photos.

INSTRUCTIONS

The instructions and related materials are available in PDF form on the RCW website, www.resincarworks.com. This allows us to include car histories, in-progress model photos, completed model photos, and prototype photos. The website instructions also allow much more detailed step explanations, suggestions, and many in-progress kit-building photos. All photos can easily be enlarged on your computer or tablet.



NC&StL 43604, GB-10, New 10-41, Bessemer, AL, Pullman-Standard photo



NC&StL 43679, GB-10, Reweigh 1-50, Stan Townsend model and photo



NC&StL 43679, GB-10, Reweigh 1-50, Stan Townsend model and photo

These should be very helpful in producing as accurate a model as possible with some meaningful background information.

Please locate and download this material from the RCW website as soon as possible after purchasing this kit. As with all web information, there is no guarantee that it will be available indefinitely.

WARRANTY

All sales are final. There will be no exchanges or returns. Resin Car Works will replace any part(s) found to be defective due to manufacturing or shipping to the original purchaser within the first 30 days after shipment. The damaged part(s) must be sent back with your request for replacement. As these are limited production kits, don't ask for replacement of parts that you damage or lose after the 30-day period.

LIABILITY

Resin Car Works will not be responsible or held liable for any and all personal injury and/or health problems, short and/or long term, that may result from the use and/or misuse of tools, adhesives, materials, castings, paints or any other product(s) used to construct and/or contained in this kit. This kit contains polyurethane castings. Although non-toxic in their cured state, dust is created during filing, sanding and drilling. Air circulation and/or ventilation should be provided. Always work in a well-ventilated room. Wear a dust mask or respirator and safety glasses for protection. Always wash your hands when you're finished working.

HISTORY

The Nashville Chattanooga & St Louis (NC&StL) railroad purchased 1150 40' solid-bottom steel gondolas over an 18-year period. These were classic Pullman style cars. They had eight posts with extensions at the four center-most posts and flat ends with reinforced ribs. The first batch of eight-post gons came in 1929 as Class GB-3, in the 43200-43349 series. This kit is of the later series built in the 1940's: GB-10, 43500-43799, built 1941; GB-11, 43800-43999, built 1947; and GB-12, 44000-44499, also built in 1949. These were relatively large 40' gons with 4'-8" IH and 42' IL. They had a capacity of 1848 cubic feet with a 50-ton capacity.

HAND BRAKES

The 1941 GB-10 cars used Miner hand brakes and the 1947 GB-11 cars used Ajax hand brakes. The first 100 cars in the 1949 GB-12 series had Superior and the last 400 cars had Miner hand brakes. The kit comes with both Miner and Ajax hand brakes.

TRUCKS

The kit includes Tahoe Model Works #007 Double Truss AAR 50-ton truck sideframes. These trucks are accurate for the GB-10 series of cars. Both the GB-11 and GB-12 class cars used ASF A-3 Ride Control trucks. Kato makes an ASF A-3 50-ton truck (#31-601) that could be used for those cars.

CONSTRUCTION

It's recommended that before you start construction that you familiarize yourself with the additional information and photos on the Resin Car Works website www.resincarworks.com that pertain to this kit.

- First give the resin parts a good cleaning with Dawn dish detergent and a toothbrush to remove any mold releasing agents. A light sanding of joints also helps parts to bond.
- The cast parts are best attached with ACC. When the term "cement" is used in these instructions, it refers to ACC. ACC is a strong adhesive which dries quickly. It can easily attach a part where it is not supposed to be. It will glue skin. Be careful. Place a few drops on a plate of glass and use a wire or pin to transfer small amounts of ACC to the area to be joined. Always wear safety glasses. ACC debonder is a useful tool for removing smudges of ACC from surfaces where it shouldn't be. Place a drop on the offending spot and wipe up.
- GOO or other such products are not recommended for construction except in small quantities as it will soften the casting material.
- When a measurement is given it's in prototype feet and inches.
- When the word "scrap" is used it is referring to an item that the modeler is to supply.
- Read the instructions thoroughly before starting the build.

PRELIMINARY STEPS

Once you have identified all of the resin parts (*Photos 1 and 2*), sand the back of the sheet enough to allow the easy removal of the parts. If necessary, use a sharp single edge razor blade to cut along the edges of the parts to assist in their removal. Set these resin parts aside in a safe place for future use. Remove the pour gate in the center of the car and file smooth. Clean up the provided coupler pockets and narrow the lids as necessary to fit. Then attach the pockets to the underframe and drill and tap holes for 2-56 screws for the trucks and 1-72 screws for the couplers. These coupler boxes will accept only Kadee No. 158 semi-scale Whisker couplers. (If you decide to use a different coupler box, attach it now.) With the Tahoe trucks provided in the kit, the couplers will sit too low. Attach the washers provided on the Tichy sprue over the bolster holes you have drilled. (See the note at end of the instructions.)

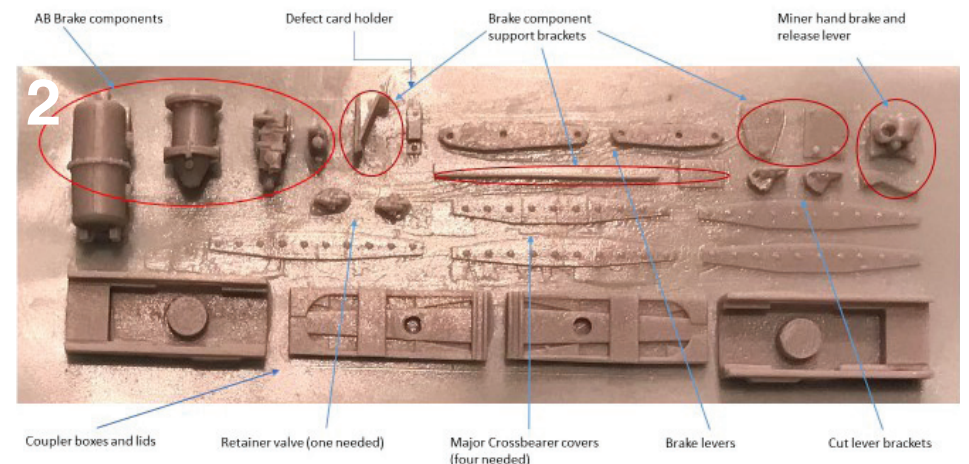
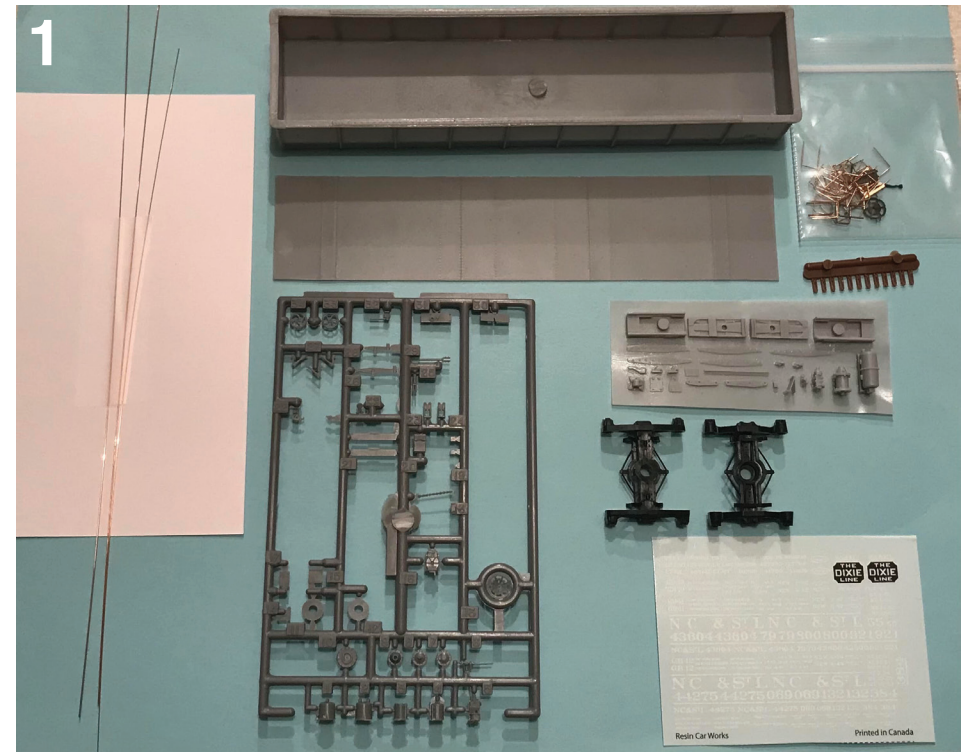
Install a weight of your choice. One choice would be thin lead sheet which is available from McMaster-Carr at <http://www.mcmaster.com>. As it is lead remember to wash your hands after installing the weight. Another choice might be some 0.030" thick stamped sheet steel. Be sure to stay clear of the holes you have drilled for the trucks and couplers. Once the glue holding the weight has dried, install the floor. You will need to slightly sand the edges of the floor to get a proper fit.

As this is a one-piece body kit, most of the hard work has been done in creating the basic car shell. You can drill the holes in the body for the addition of grabs and stirrups now or wait until the underframe is complete. If drilling the holes now, be sure to study the photos to determine the proper placement of the holes. I generally use a #79 drill for all the grabs and #76 for the stirrups. Again, refer to the prototype photos as to the location of the grabs and sill steps (stirrups).

UNDERFRAME

Note that there is a distinctive B end to the casting. Mark the underside of the car for reference and, if you decide to add a brake line, do so now using .015" brass wire. Find the four crossbearer caps in the resin parts and mark the center of each. Center them across the width of the car and cement these cover plates in place over the middle four crossbearers.

The kit provides both resin and Tichy plastic AB brake parts. Reference the location of brake components and clevises using the model photos pro-



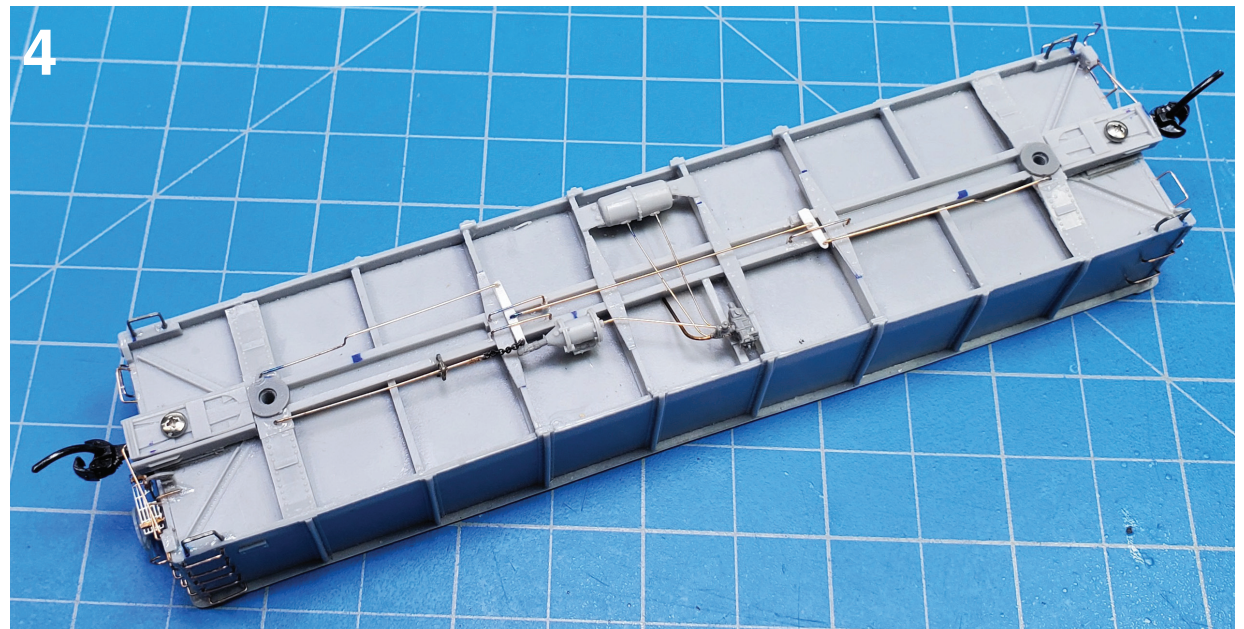
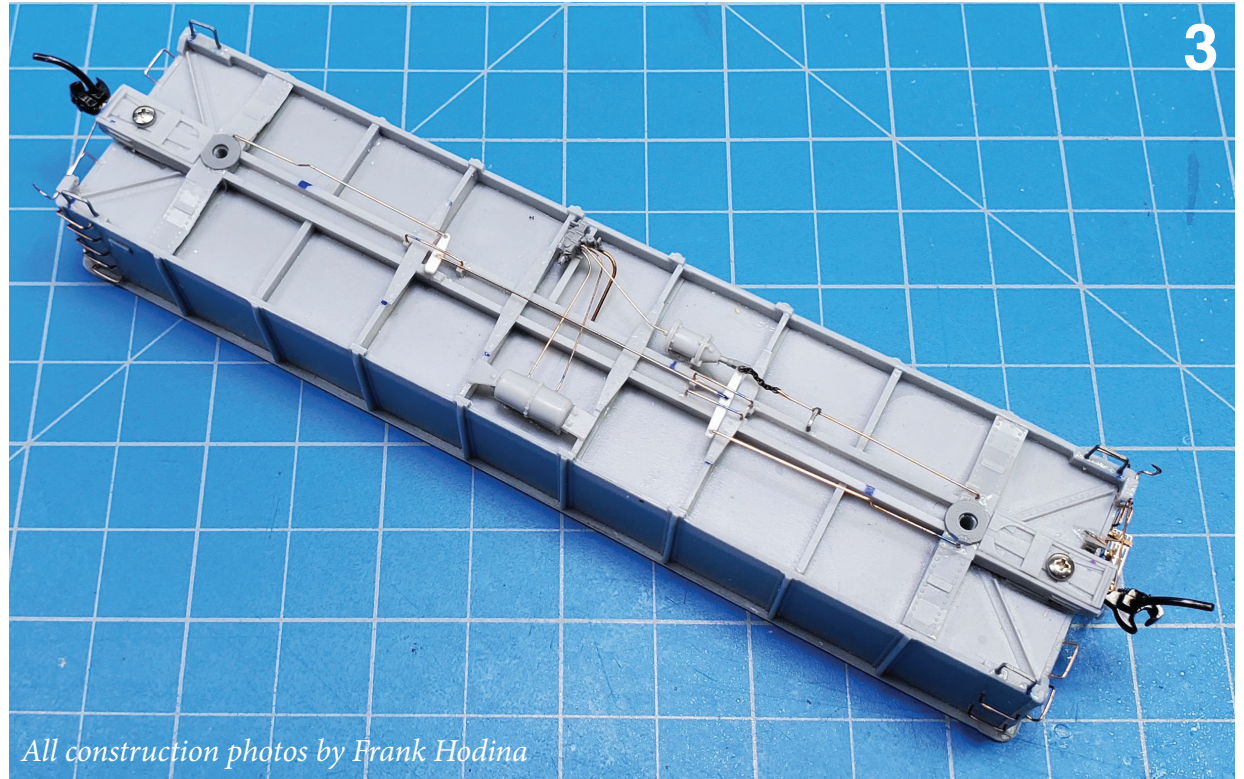
vided. Note the latitudinal direction of the control valve. Once the locations are determined, decide which type of the brake components you wish to use, and add them with the various mounting pieces provided (or those of your choice). Add the connecting piping using the 0.010" wire provided. The dirt collector can be added from the resin parts or from the Tichy sprue. Install brake levers (either the resin ones or those from the Tichy sprue) with the 0.0125" wire provided, using the Tichy turnbuckles as clevises. Also install a small piece of scrap chain between the clevises at the brake cylinder. Finally, using either 18" straight grab irons or brass wire bent to fit, install the lever guards. Note the guide that is also added to the brake rod in the model photos. This can be made from a scrap piece of wire or from a partial stirrup.

BODY

As either the last step for the underframe or the first step for the body, add the sill steps. A-Line type A steps are provided, and the legs should line up with the straps cast into the bottom edges of the car sides. If you have not already done so, drill #76 holes for the insertion of the legs of the stirrups. Trim the legs slightly and glue them into place.

The grabs provided for this car are a combination of 18" straight and drop grabs. Study the prototype and model photos carefully, noting that the second from top straight grab for each end "ladder" is applied above the rivet castings, rather than below as all the others are. If you have not yet drilled the holes for the grabs, do so now. Following the photos, install either the appropriate drop or straight grabs and glue in place.

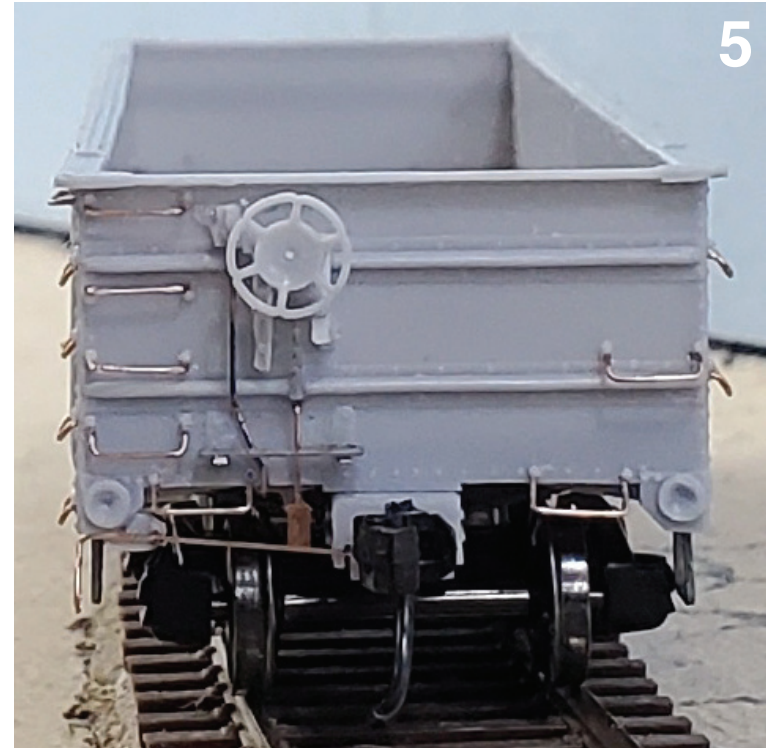
The two straight grabs at the bottom of each of the



ends differ slightly for the GB-10 versus the GB-12 cars. Decide which class of car you are modeling and add these bottom end grabs following that prototype.

De-flash and shape the cut lever (pin lifter) mounts. Drill a #78 hole for the supplied Yarmouth eyebolt, insert the eyebolt, and glue the mounts to the lower left-hand side of each end. The castings on the B end of the car determine the placement of the hand brake housing. This, in turn, will determine where the bell crank (fulcrum) should be located. Drawing a vertical line, centered between the cast on "tabs", will help to properly locate the bell crank. First, referring to the prototype photos, attach the chosen retainer valve (resin part or Tichy plastic part). Then add the retainer pipe. Drilling a hole just below the bottom of the retainer valve into the car end will serve as the anchor for the top of the retainer pipe. The retainer line hugs the car end from the valve to the bottom of the car. Using .006" phosphor bronze wire will make the bending of this line easier. Or a section of stranded wire could be used. In either case, make a 90-degree bend in the wire at its top and glue into the drilled hole. The Tichy sprue has a part (#22) that could be used for the bell crank. Or a substitute of your choice could be made. In either case, the bell crank should be located at the bottom of the drawn vertical line and prepared for the insertion of the .0125" brass wire section representing the brake staff.

All of the GB-10 (43500-43799) cars and 400 (44100-44499) of the GB-12 cars used a Miner hand brake. The GB-11 (43800-43999) cars used an Ajax hand brake. An Ajax hand brake and handle are provided in the plastic kit parts. A Miner brake housing and



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handle are provided in the resin kit parts. Determine the type you wish to use. Attach the handle to the housing. The housing rests on the end rib of the car at the top and the cast on tabs at the bottom. A chain extends from the bottom of the housing part way down the end of the car and then is connected to the staff. The Tichy sprue has a plastic “chain” that can be shortened and used below the housing. Similarly to the retainer pipe anchor, a hole drilled into the end of the car at the bottom edge of the chain will allow the staff to be anchored there. The other end of the staff connects to the bell crank. Glue the chain to the housing, glue that assembly to the car end, drill the hole at the bottom of the chain, and glue the staff in place.

The brake step should be test fit to guarantee that the cutout matches the placement of the brake staff. If not, enlarge it sufficiently to allow the staff to pass through. Using styrene strips from the scrap box, add two bottom supports to the brake step matching those cast onto the car end. Glue the step in place at the bottom of the cast on straps. Finally, add the provided Miner or Ajax brake wheel to the housing.

If you are choosing to add them, the kit’s parts provided for the angle cock and air hose can be attached now or after painting. The bottom-mount cut levers should be created out of .010” brass wire. See the prototype photos for the correct shape. They can also be added now or after painting.

PAINTING AND LETTERING

Before painting wash the car again with Dawn, rinse and allow to dry thoroughly.

The gondolas were painted the standard box car red of the railroad. This color had a slightly brown hue. Many currently available paints could be used to try to match this color. One of them is TrueColor paint #236.

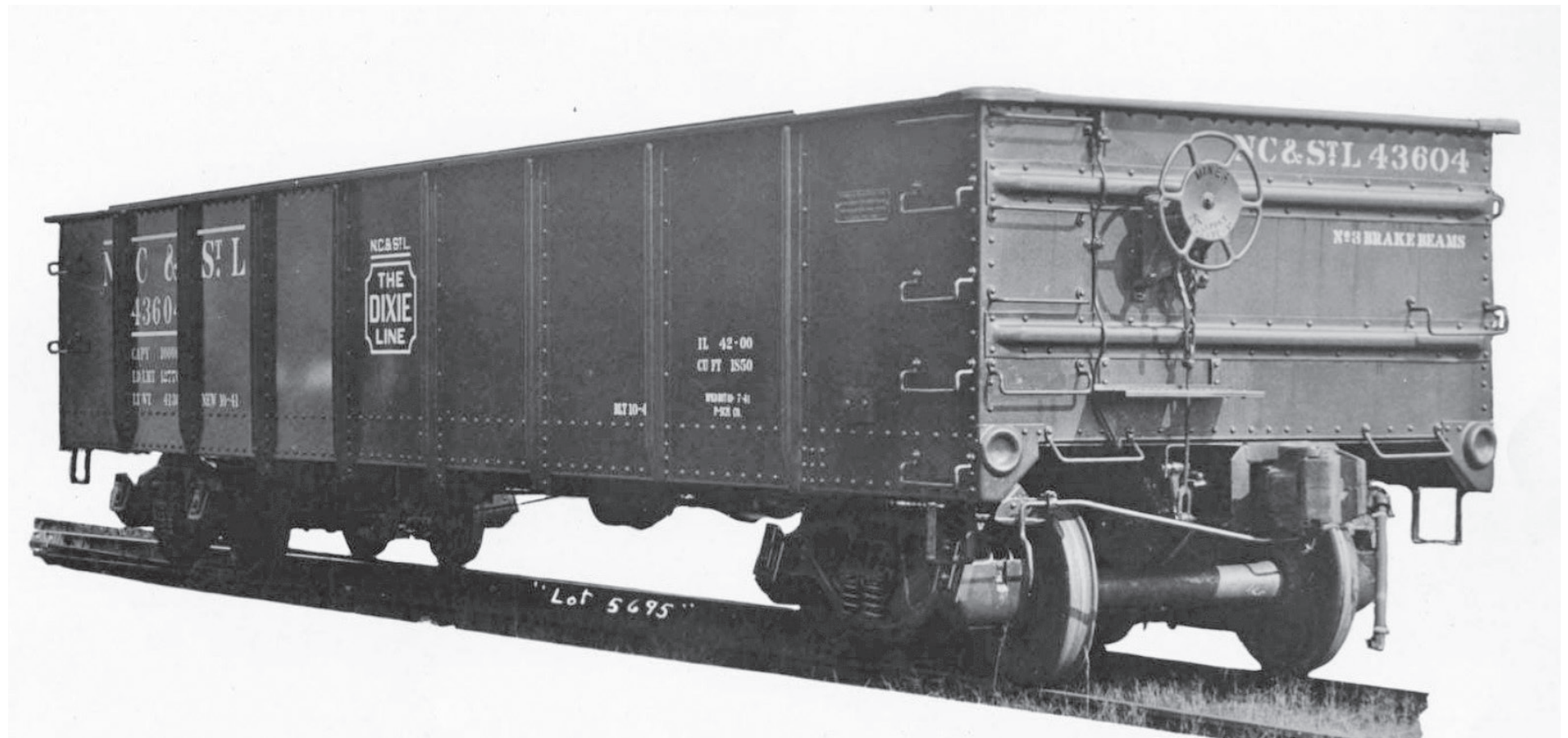
The decals are from Precision Design Company. There is nothing special about their application, but it’s recommended that there’s water on the model for decal placement. I used Microscale Set (the blue bottle) for placement. Once the decals are dry, sev-



eral applications of Micro Sol (red bottle) were used to get the decals settled. The decals were sealed with Sealcoat I Flat Glaze. Once everything is dry install the trucks. After weathering, the model is ready for the layout. And don't forget to make the car card for your new piece of freight equipment.



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NC&StL 43604, GB-10, New 10-41, Bessemer, AL, Pullman-Standard photo



NC&StL 43800, GB-11, New 9-47, Pullman-Standard photo



No. 6380. Lot 5930. 4-11-49.

NC&StL 44275, GB 12, New 4-49, Pullman-Standard photo

NC&StL GB-3, GB-10, GB-11, GB-12 solid bottom gondolas
Cars in Service December 1929 through July 1965 per Selected ORERs

CLASS	GB-3	GB-10	GB-11	GB-12	Notes
BLD DATE	May-29	Sep/Oct 1941	Sep/Oct 1947	Mar/Apr 1949	
# BUILT	150	300	200	500	
# SERIES	43200-43349	43500-43799	43800-43999	44000-44499	
ORER					
Dec-29	149				
Jul-42	150	300			
Oct-46	150	299			
Oct-50	149	296	199	499	
Jan-53	147	293	198	500	
Oct-55	146	292	198	485/14	Containers
Oct-57	See Comments	292	196	481/17	Containers
Jan-61	54		423	414/14	Containers
Jul-61	48		421	411	
Jul-65	2		173/5*	354/7*	

* these cars have had their capacities increased to 110,000 lbs

Comments:

The L&N officially merged with the NC&StL on 8/30/1957. The Oct. 1957 ORER still has the NC&StL as a separate listing. Beginning with the Jan. 1958 ORER, the NC&StL cars are listed inside the L&N listing - keeping their own livery. However, a new set of number series are set up under L&N numbers in anticipation of renumbering the gons.

L&N series:

	47000-47016 Containers	47019-47499 GB-12	47500-47991 GB-10, -11	48000-48145 GB-3
ORER				
Jan-61	12	56	58	14
Jul-61		69	59	12
Jul-65		104/8*	51/5*	9/1*

* these cars have had their capacities increased to 110,000 lbs

It appears that the Container program with these cars was ended in the early 1961. Also, starting in October 1966, many of the existing gons were rebuilt with new ends and renumbered again into the 28000-28999 series.



NC&StL 44069, GB-12, 2 50 reweigh date, in container service